Claims

1. A method for determining fluctuating fuel properties (Hu, ρ) during the operation of a power plant, wherein an efficiency factor (η) for the power plant is determined on the basis of current operating parameters (P, m, V, p, T) of the power plant and a change in the fuel properties (Hu, ρ) is concluded as a result of a change over time in the efficiency factor (η) thus determined,
characterized in that
the change over time in the efficiency factor (η) relative to a reference operating state (0) is determined, in addition to which the heating value (Hu_0) and/or the standard density (ρ_0) of the fuel are determined as reference variables, the reference variables (Hu_0; ρ_0) being determined by means of a rolling averaging during the operation of the power plant.

2. The method as claimed in claim 1,
characterized in that
one or more elements from the group power rating (P) of the power plant, mass flow (m) of the fuel, volume flow (V) of the fuel, pressure (p) of the fuel, and temperature (T) of the fuel are determined as the current operating parameters (P, m, V, p, T).

3. The method as claimed in claim 2,
characterized in that
the efficiency (η) is determined by direct recording of the mass flow (m) of the fuel.

4. The method as claimed in claim 2,
characterized in that

the efficiency is determined by recording the volume flow (V), the pressure (p) and the temperature (T) of the fuel, in particular while leaving out of consideration the real gas factor (z).

5. The method as claimed in claim 2, characterized in that the efficiency is determined by measuring differential pressure (Δp), pressure (p) and temperature (T) of the fuel, in particular while ignoring the real gas factor (z).

6. The method as claimed in one of the claims 1 to 5, characterized in that a change in the mass-related heating value (Hu_m) of the fuel is concluded as the change in the fuel property (Hu, ρ).

7. The method as claimed in one of the claims 1 to 6, characterized in that a change in the volume-related heating value (Hu_V) of the fuel is concluded as the change in the fuel property (Hu, ρ).

8. The method as claimed in one of the claims 1 to 7, characterized in that a change in the Wobbe index ($\sqrt{\frac{\rho_{N,0}}{\rho_N}}\frac{Hu_V}{Hu_{V,0}}$) is concluded as the change in the fuel property (Hu, ρ).

9. The method as claimed in one of the claims 1 to 8, characterized in that the change in the fuel properties (Hu, ρ) is quantified using mathematical methods.